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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/384,380	08/27/1999	MICHIHISA TASAKA	0234-0370P	7724

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BIRCH STEWART KOLASCH & BIRCH  
PO BOX 747  
FALLS CHURCH, VA 22040-0747

EXAMINER

LEE, RIP A

ART UNIT	PAPER NUMBER
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1713

DATE MAILED: 06/12/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/384,380

Applicant(s)

TASAKA ET AL.

Examiner

Rip A. Lee

Art Unit

1713

-- Th MAILING DATE of this communication appears on th cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 24 April 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-3,5-7 and 10-15 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3,5-7 and 10-15 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 19. 6) ☐ Other:

### DETAILED ACTION

This office action follows a response filed on April 24, 2003. Applicants have submitted a declaration under 37 C.F.R. § 1.132, and a supplemental information disclosure statement.

#### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

3. Claims 1-3, 5-7, and 10-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,433,062 to Tasaka *et al.* in view of U.S. Patent No. 5,221,781 to Aida *et al.* for the same reasons set forth in the previous office action (Paper No. 16).

### *Response to Arguments*

4. Applicant's arguments have been considered fully, but they are not persuasive. The following points in the Applicant's arguments have been noted:

- (i) Tasaka *et al.* fails to disclose and suggest treating a metal hydrate with silane compound.
- (ii) Tasaka *et al.* fails to disclose that the organic peroxide is used for crosslinking.
- (iii) Aida *et al.* fails to disclose and suggest using silane to treat the surface of the metal hydrate.

Indeed, Tasaka *et al.* fails to disclose and suggest treating a metal hydrate with silane compound, and this point was acknowledged in the previous office action. However, Aida *et al.* does offer the suggestion to use silane coupling agent for  $\text{Mg}(\text{OH})_2$  filler (*qv* col. 6, line 15). Therefore, the skilled artisan would find it obvious to do likewise. Despite the fact that it is not stated explicitly that the *surface* of the filler is being treated, the skilled artisan would find this notion quite obvious, as it would be impossible to treat only the interior of the particle with coupling agent. Finally, use of peroxide in an amount of 0.1-1.5 parts by weight is discussed in column 2, line 55. One having ordinary skill in the art would readily appreciate that it is used for crosslinking, regardless if this is actually mentioned in the text.

Even though Tasaka *et al.* does not mention silanes, the use of such coupling agents to facilitate homogenous dispersion of inorganic filler is routine practice in the art, and the skilled artisan would find it obvious to do so. Even if the artisan were not adequately skilled, Aida *et al.* make obvious the treatment of magnesium hydroxide with silane coupling agent.

In view of the discussion above, the rejection of record has not been withdrawn.

*Review of Declaration under 37 C.F.R. § 1.132*

5. The Applicant's declaration has been reviewed in detail, and the examiner's comments are disclosed below.

The data for comparative example 103 and inventive example 10 have been submitted previously. The data show differences between use of an ethylene/ $\alpha$ -olefin copolymer produced with a single site catalyst and one prepared from a multi-site catalyst. Although the flame retardant property of the two materials is identical, the Applicants note that whitening and processing effects are different. While these features render the inventive material "excellent," they hardly constitute "unexpected superior results" in view of the fact that the prior art already teaches use of ethylene copolymer of density less than  $0.90 \text{ g/cm}^3$  prepared in the presence of a single site catalyst (col. 5, lines 31 and 44).

Comparative example 102 lacks a crosslinking aid. Since this is an essential component of the composition, it is not surprising that tensile properties of the resulting material are inferior to that of the inventive composition. The purpose of this experiment with respect to the subject of the traversal is not clear.

The difference between comparative example 101 and example 10 is the amounts of Kisma 5LH and Kisma 5B filler used in the composition. Whereas the former filler is treated with vinylsilane, the latter is treated with aliphatic acid. As shown in Table A, use of a 2/3 ratio of Kisma 5LH to Kisma 5B instead of a 3/2 ratio results in a marked difference in the tensile strength, and this appears to be an unexpected result of the invention. However, this combination of filler is not the subject of the present claims.

***Conclusion***

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rip A. Lee whose telephone number is (703)306-0094. The examiner can be reached on Monday through Friday from 9:00 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu, can be reached at (703)308-2450. The fax phone number for the organization where this application or proceeding is assigned is (703)746-7064. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)308-0661.

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June 9, 2003



DAVID W. WU  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 1700